



# **The Role of Education and Public Outreach in the Discovery Program**

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**Presented at the Discovery Kickoff Meeting  
Renaissance Hotel, Washington, DC**

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April 23, 2004**



# What is NASA Space Science Trying To Do in Education and Public Outreach?

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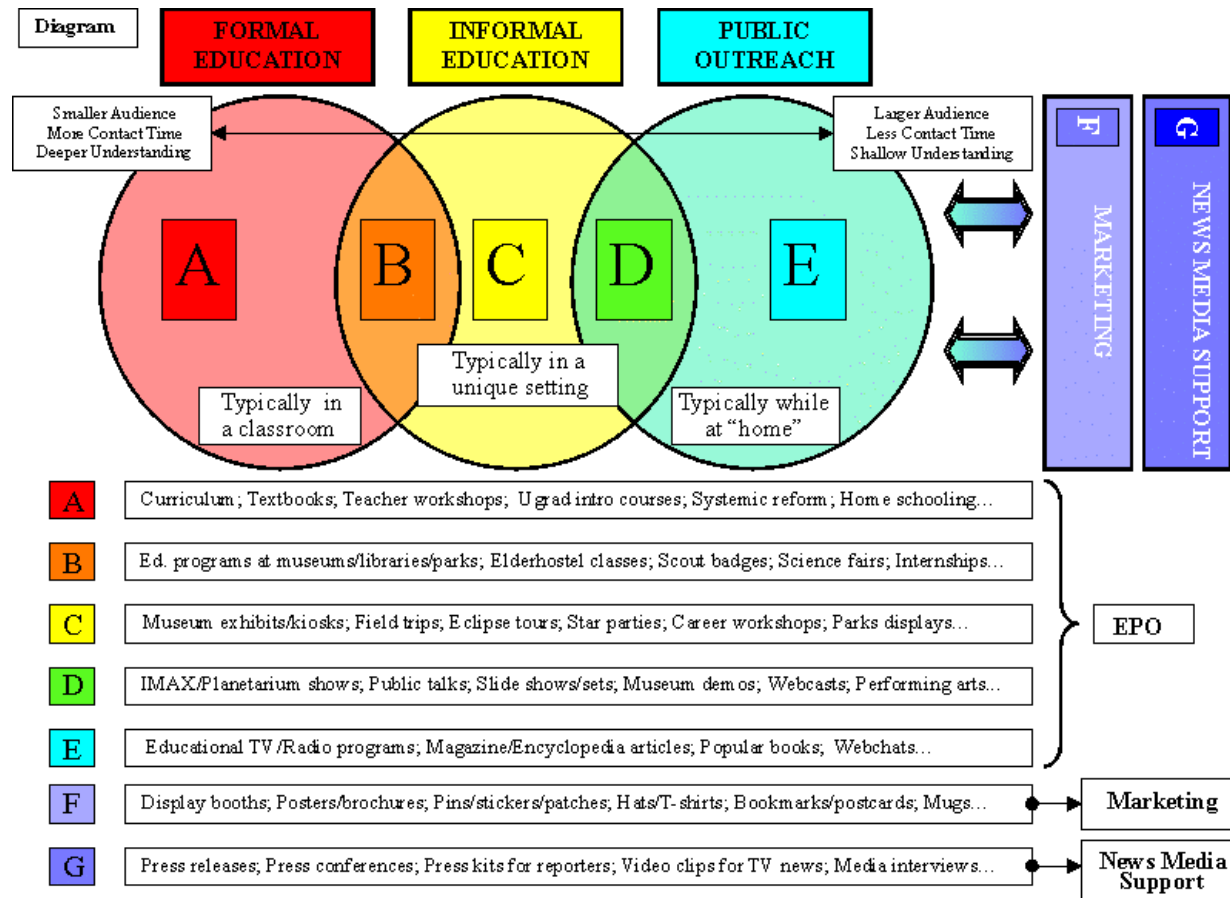
- Inspire and motivate students to pursue careers in science, technology, engineering, and mathematics by supporting education in the Nation's schools
- Engage the public in shaping and sharing the experience of exploration and discovery by supporting informal education and public outreach efforts.



**Addressing these goals has led to the establishment of a multi-faceted portfolio of activities involving many types of partners and carried out in many types of communities across the country.**

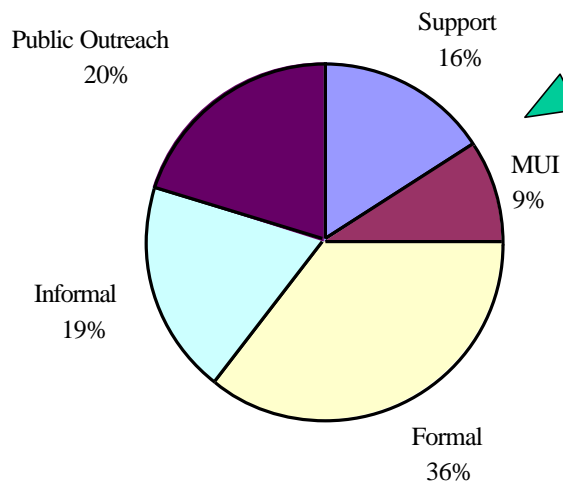


# OSS Education and Public Outreach: Some Important Definitions



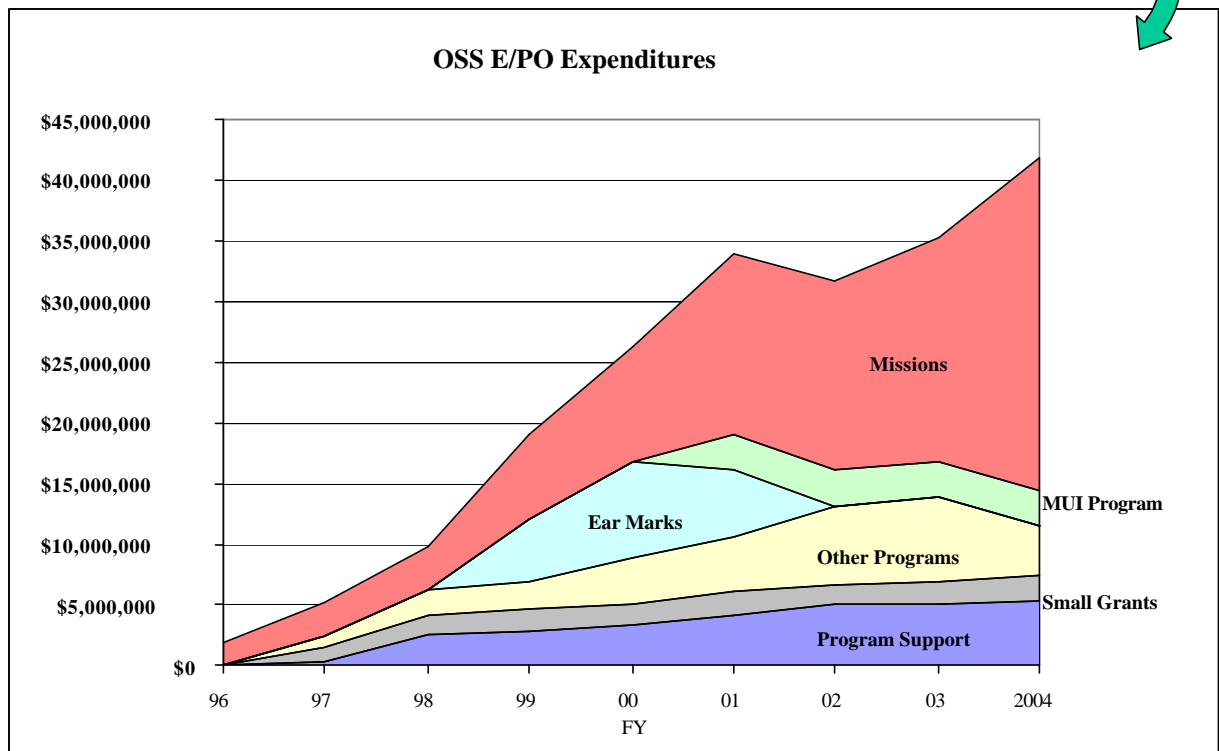


# OSS Education and Public Outreach Budget History and Allocations

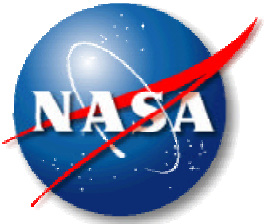


Funding Allocations (FY 2002–\$32M total)

Funding History/Projections (FY 1996-2004)



Note that the OSS E/PO program is also drawing upon significant resources from outside of NASA.



# OSS Education and Public Outreach (E/PO)

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- “Sharing the excitement of space science discoveries with the public” and “Enhancing the quality of science, mathematics, and technology education, particularly at the pre-college level” are built into all aspects of the space science program.
- Over the past 9 years, one of the largest single programs in astronomy and space science education ever undertaken has been planned and implemented.
- Focus has been on:
  - Creating partnerships between space scientists and educators to ensure that the needs of educators are being met
  - Working through partner’s to create high-leverage state, regional, and national opportunities
  - Establishing unique opportunities for educators, students and the public to participate in authentic science and exploration
- Emphasis of the E/PO program directly reflects the emphasis of the scientific and technical content of the OSS program.



## How does the OSS E/PO program relate to the broader NASA Education Program?

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There is one NASA Education program.

- It is directed by the Office of Education.
- Management of various programs is vested in several organizations including the Office of Education, NASA Enterprises (such as the Office of Space Science), and the NASA Field Centers.
- OSS E/PO is aligned with NASA policies and guidelines, evaluation and reporting for education programs.



# Contributors to FY 2003 OSS E/PO Program

- Over 115 OSS Missions and Programs.
- Nearly 1,300 OSS-affiliated scientists, technologists, and support staff.
- More than 500 institutional partners, including:
  - ~ 200 science centers, museums, and planetariums.



- ~ 200 science institutions and organizations, colleges and universities (including 34 minority institutions).
- 16 professional societies of minority scientists and organizations promoting minority participation in science.
- Over 90 libraries, community and other organizations.



# Extent of FY 2003 OSS E/PO Program

- Nearly 500 E/PO activities and new products.
- Over 5,000 discrete E/PO events.
- Presence in all 50 states, DC, PR, and VI.
- Presence at over 20 national and nearly 60 regional E/PO conferences.
- More than 30 awards and other forms of public recognition received.
- Estimated participants:
  - Over 390,000 direct participants in workshops, community and school visits, and other interactive special events.
  - Over 6 million Internet participants for web casts, web chats, and other web events.
  - Potential audience of over 200 million for lectures, planetarium shows, museum exhibitions, conference exhibits, radio, television, and other forms of public media.







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# Proposal Preparation



# OSS Education and Public Outreach

## What Are We Looking For In the Proposals?

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- A statement that the PI understands the requirements of the OSS E/PO program and is committed to carrying out a program that meets the OSS E/PO goals.
- Identification of unique characteristics of the mission that would be utilized in the E/PO program.
- An overview of the planned E/PO activities
  - Identification of target audiences and areas of emphasis/activities in formal, informal and public outreach.
  - Understanding of the role that program evaluation plays in E/PO.
  - A commitment to adequately fund the proposed E/PO program--  
(OSS Guideline: 1-2% of the total mission cost through all phases excluding launch vehicles.)



# OSS Education and Public Outreach

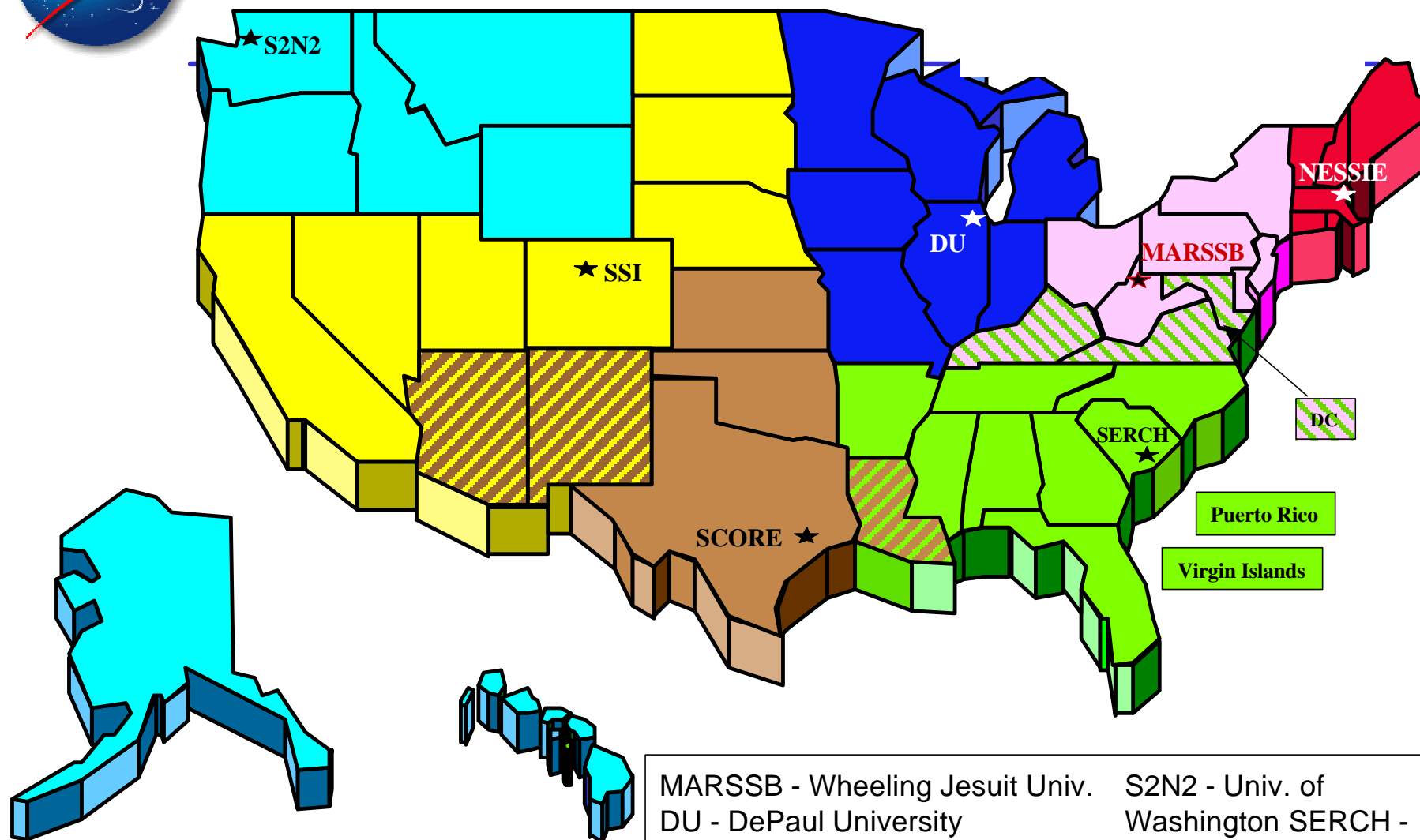
## Sources of Information for Proposal Preparation

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- OSS Explanatory Guide for the Education/Public Outreach Evaluation Criteria (**Version 3.0 March 2004**)
  - Describes in great detail what the Evaluation Criteria mean
  - Contains answers to “Frequently Asked Questions”
  - Was developed to ensure that E/PO efforts are prepared and evaluated on a consistent basis.
- OSS Education and Public Outreach Annual Reports
- OSS E/PO Newsletters
- OSS Support Network (Education Forms and Brokers)



## FY 2004 OSS E/PO Broker/Facilitator Regions



MARSSB - Wheeling Jesuit Univ. S2N2 - Univ. of Washington  
DU - DePaul University SERCH - College of Charleston  
SCORE - Lunar & Planetary Inst. SSI - Space Science Inst.  
NESSIE - Museum of Science

(cross-hatches indicate shared regions)



## OSS Education and Public Outreach Sources of Assistance

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- Call your local Broker/Facilitator or the appropriate OSS Education Forum
  - The Support Network is there to help, but is not responsible for preparing the E/PO portion of your Investigation
- In accord with the operating principles developed by the Support Network, discussions with individual Teams developing proposals will be treated as proprietary
- Contact information is available through the OSS E/PO Homepage
- Questions about the OSS E/PO Program may be directed to the Office of Space Science E/PO Program Office.



# **OSS Education and Public Outreach Other Sources of Information**

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- NASA Strategic Plan
- NASA Space Science Strategy
- NASA Education Enterprise Strategy
- OSS Education and Public Outreach Strategy
- OSS Education and Public Outreach Implementation Plan
- OSS E/PO Evaluation Report (2004), Lesley University
- History of OSS E/PO Program



# OSS Education and Public Outreach

## Some Summary Observations

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- OSS is serious about education and public outreach
  - A major national program is now underway
- E/PO will be an integral element of the Discovery evaluation and selection process
  - E/PO has made a difference in previous AO selections
- OSS has seen a significant evolution in the level of maturity, ambition and sophistication in mission E/PO programs over the past several years
  - We have high expectations for Discovery E/PO.
- Resources are available to help the PI's in developing their proposals
  - Contact the Forums and Broker/Facilitators for help
  - Read the “Explanatory Guide” and other available documentation
- Prepare to treat E/PO with the same rigor and professionalism that you'll treat the science and engineering aspects of the Concept Study Report.

The background of the slide is a composite image. The top half features a deep space scene with various galaxies, including a prominent spiral galaxy in the center, and numerous stars. A bright, curved streak, possibly a comet or meteor, arcs across the upper right. The bottom half of the image shows a silhouette of two people standing on a rocky outcrop, looking up at the sky. One person is pointing towards the stars. The sky in this lower section is a lighter blue with some wispy clouds.

# *Chicago 2004*

**A Workshop to Foster Broader Participation in  
NASA Space Science Missions and Research  
Programs**

**The Hilton Chicago  
June 28-29, 2004**

**<http://analyzer.depaul.edu/Chicago2004/>**





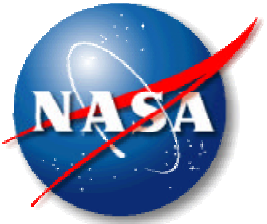
# Chicago 2004

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- Chicago 2004 is a workshop aimed at bringing together NASA personnel, current OSS-funded scientists and educators, and a diverse array of scientists and educators who are interested in participating in future OSS missions and research programs.
- Participants will gain insights into ways in which NASA space science missions and research programs are planned, mission and research teams are assembled, and proposals are prepared.



- **A specific goal of the workshop is to seed personal contacts among a much more diverse community of investigators than has traditionally been active in NASA space science missions.**



# For Further Information and To Get Involved

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- Visit the Chicago 2004 Web site at <http://analyzer.depaul.edu/Chicago2004/> and get on the workshop e-mail list.
- Questions on logistics may be directed to:
  - Ms. Victoria Simek (vsimek@depaul.edu or 773-329-4790).
- Questions on content may be directed to any of the conveners:
  - Dr. Phil Sakimoto, Space Science Education and Public Outreach Program, NASA Headquarters (philip.j.sakimoto@nasa.gov or 202-358-0949).
  - Dr. Charles McGruder, Western Kentucky University and Past President of National Society of Black Physicists (charles.mcgruder@wku.edu or 270-745-5277).
  - Dr. Lynn Narasimhan, NASA OSS Broker/facilitator, DePaul University (cnarasim@depaul.edu or 773-325-1854).